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| APPLICATION NO.                        | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/628,331                             | 07/29/2003  | Atsushi Nishio       | 02410337AA          | 6085             |
| 30743                                  | 7590        | 08/11/2004           | EXAMINER            |                  |
| WHITHAM, CURTIS & CHRISTOFFERSON, P.C. |             |                      | GILMAN, ALEXANDER   |                  |
| 11491 SUNSET HILLS ROAD                |             |                      | ART UNIT            |                  |
| SUITE 340                              |             |                      | PAPER NUMBER        |                  |
| RESTON, VA 20190                       |             |                      | 2833                |                  |

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                       |                                      |  |
|------------------------------|---------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/628,331  | <b>Applicant(s)</b><br>NISHIO ET AL. |  |
|                              | <b>Examiner</b><br>Alexander D Gilman | <b>Art Unit</b><br>2833              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 5, are rejected under 35 U.S.C. 102(e) as being anticipated by Howell.

With regard to claim 1, Howell (US 6,328,574) discloses (Fig. 7) a connector, comprising:

a connector body (10), having a top, a bottom, and an inner side face defining a chamber which accommodates the module body, the chamber formed with an opening from which the module body is inserted;

a first, conductive terminal (20a), provided on the inner side face such that a conductive member formed on an outer periphery of the module body is brought into contact with the first terminal in a case where the module body is completely accommodated in the chamber;

and a second, grounding terminal, (20b) provided on the inner side face and operable to be brought into contact with the conductive member of the module body,

wherein the second terminal is provided at a portion closer to the opening than the first terminal,

wherein the first terminal and the second terminal are provided only on said

inner side face.

2. Claims 1, 3, 4, are rejected under 35 U.S.C. 102(b) as being anticipated by Perkins et al.

With regard to claims 1 and 3, Perkins et al(US 5,398,154) disclose (Fig. 2) a connector, comprising:

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a connector body (14), having having a top, a bottom (considering the side 36 as a bottom), and an inner side face defining a chamber which accommodates the module body, the chamber formed with an opening from which the module body is inserted;

a first, conductive terminal (34,36), provided on the inner side face such that a conductive member formed on an outer periphery of the module body is brought into contact with the first terminal in a case where the module body is completely accommodated in the chamber;

and a second, grounding terminal, (70,72) provided on the inner side face and operable to be brought into contact with the conductive member of the module body,

wherein the second terminal is provided at a portion closer to the opening than the first terminal

With regard to claim 4, Perkins et al discloses the second terminal is formed with a protrusion which engages with the module body in a case where the module body is planarily accommodated in the chamber.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howell et al in view of Grabbe et al.

Howell et al disclose all of the limitations except for the chamber having a rectangular cross section when viewed from the opening; and the first terminal and the second terminal being provided on each of four inner side faces designing the chamber.

Grabbe et al disclose (Fig. 5) the chamber having a rectangular cross section when viewed from the opening; and the terminals being provided on each of four inner side faces designing the chamber.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the Howell et al socket as the chamber having a rectangular cross section when viewed from the opening and the terminals being provided on each of four inner side faces designing the chamber, as taught by Grabbe et al, to utilize the Howell et al connector with modules having four side leads.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howell et al in view of the admitted prior art.

Howell et al disclose all of the limitations except for using the connector with a camera module

The admitted prior art discloses (Fig. 4, 5) using the connector with a camera module

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the Howell et al socket for using the connector with a camera module, as taught by the admitted prior art, to extend the applicability of the Howell et al connector.

### ***Response to Arguments***

Applicant's arguments filed 05/20/2004 have been fully considered but they are not persuasive. Applicant argues that Howell et al do not provide for configuring such contacts in a manner permitting light to pass through the bottom of the socket or in a manner by which static electricity may be removed to prevent damage when connection to a power contact is made, because some of the connections in Howell et al are made through the bottom of the socket.

However, claim 1 does not claim the properties of invention which should permit light to pass through. The term "opening" does not automatically mean "through hole". An opening can be a gap. The fact that some of the connections in Howell et al are made through the bottom of the socket (r.n. 301, 11) does not contradict with requirement that "the first terminal (20a) and the second terminal (20b) are provided only on said inner side face". Also, it is unclear, why Howell et al do not provide the properties by which static electricity may be removed to prevent damage when connection to a power contact is made, since the ground contacts (20b) are disposed on the inner face.

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Analogous Applicant's argument regarding rejection over Perkins is not persuasive, since ~~the~~ "the first terminal (34, 36) and the second terminal (72) are provided only on said inner side face."

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander D Gilman whose telephone number is 571 272-2004. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571 272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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08/05/2004

*Alex Gilman*

**ALEXANDER GILMAN  
PRIMARY EXAMINER**